Electronic Supplementary Information

The importance of unconventional C–H $\cdots \pi_{(SCN)}$ interactions in stabilizing the unexpected *syn/anti* arrangement of pendant alkoxy side arms in two manganese(IV) Schiff base complexes: Exploration of catechol oxidase and phenoxazinone synthase like activities

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Figure S1: IR spectrum of complex 1



Figure S2: IR spectrum of complex 2



Figure S3: UV-visible spectrum of complex 1. Inset shows lower intense d-d band.



Figure S4: UV-visible spectrum of complex 2. Inset shows lower intense d-d band.



Figure S5: Experimental and simulated PXRD patterns of (a) Complex 1 and (b) Complex 2 showing the purity of the bulk material.



Figure S6: Hirshfeld surfaces mapped with d_{norm} (top), shape index (middle) and curvedness (bottom)



Figure S7: 2D Finger print plots for complexes 1 (A) and 2 (B).



Figure S8: ESI-MS positive spectra of 1:50 mixture of complex 1 and 3,5-DTBC.



Figure S9: ESI-MS positive spectra of 1:50 mixture of complex 1 and *o*-aminophenol.